

### **Amendments to the Claims:**

The following listing of claims replaces all prior versions of the claims:

#### **Listing of Claims:**

1. (currently amended) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a guidewire in a first direction through an introducer and into the spinal subarachnoid space at an entry location, the guidewire being sufficiently flexible to navigate the spinal subarachnoid space, the introducer having a distal end;

advancing the guidewire in a second direction beyond the distal end of the introducer, the second direction being different from the first direction;

percutaneously introducing a device over the guidewire and into the spinal subarachnoid space, the device having a first passageway sized to slidably receive, and work with, at least the guidewire, and the guidewire being positioned in the first passageway;

advancing the device over the guidewire and within the spinal subarachnoid space at least more than 10 centimeters from the entry location; and

introducing a penetration apparatus through the first passageway of the device, the penetration apparatus including an outer sleeve element and an inner puncture element, the outer sleeve element and the inner puncture element being slidably coupled together;

puncturing the pia matter using the penetration apparatus; and

advancing the device over the guidewire from the spinal subarachnoid space into the intracranial subarachnoid space.

2. (original) The method of claim 1, further comprising:

removing a portion of the brain of the living being.

3. (original) The method of claim 1, wherein the living being contains cerebrospinal fluid, and further comprising:

flushing at least some cerebrospinal fluid in order to remove blood from that cerebrospinal fluid.

4. (canceled)

5. (currently amended) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a guidewire in a direction through an introducer and into the spinal subarachnoid space at an entry location, the guidewire being sufficiently flexible to navigate the spinal subarachnoid space, the introducer having a distal end;

advancing the guidewire in another direction beyond the distal end of the introducer;

percutaneously introducing a device over the guidewire and into the spinal subarachnoid space, the device having a first passageway sized to slidably receive, and work

with, at least the guidewire, and the guidewire being positioned in the first passageway;

advancing the device over the guidewire and within the spinal subarachnoid space at least more than 10 centimeters from the entry location;

introducing a penetration apparatus through the first passageway of the device, the penetration apparatus including an outer sleeve element and an inner puncture element, the outer sleeve element and the inner puncture element being slidably coupled together;

puncturing the pia matter using the penetration apparatus;

accessing at least one ventricle located within the head with a second device introduced through the first passageway of the device; and

inducing hypothermia in at least some brain tissue.

6. (original) The method of claim 5, further comprising:  
draining at least one ventricle located within the head.
7. (original) The method of claim 1, wherein the device includes a second passageway sized to slidably receive, and work with, at least a guidewire.
8. (original) The method of claim 7, further comprising:  
introducing an endoscope through the first passageway of the device.

9. (original) The method of claim 7, wherein the device includes a first sub-elongated member that has the first passageway, and a second sub-elongated member coupled to the first sub-elongated member, the second sub-elongated member having the second passageway.
10. (original) The method of claim 9, wherein the device further includes a braiding material wrapped around the first and second sub-elongated members.
11. (original) The method of claim 1, wherein a cross section taken along the device has a shape that is non-circular.
12. (canceled)
13. (original) The method of claim 1, further comprising:  
delivering medication to an intracranial subarachnoid space.
14. (original) The method of claim 1, wherein the device includes a wall to which an electroencephalography electrode is attached.
15. (original) The method of claim 1, wherein the device includes a wall to which a sensor useful for monitoring a biochemical property is attached, and further comprising:  
monitoring either pH, glucose concentration, oxygen tension, carbon dioxide concentration, or sodium concentration using the sensor.

16. (original) The method of claim 1, wherein the device includes a wall to which a thermal sensor useful for monitoring temperature is attached, and further comprising:

monitoring temperature using the thermal sensor.

17-20. (canceled)

21. (previously presented) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a guidewire in a first direction through an introducer and into the spinal subarachnoid space at an entry location, the guidewire being sufficiently flexible to navigate the spinal subarachnoid space, the introducer having a distal end;

advancing the guidewire in a second direction beyond the distal end of the introducer, the second direction being different from the first direction;

percutaneously introducing a device over the guidewire and into the spinal subarachnoid space, the device having a first passageway sized to slidably receive, and work with, at least the guidewire, and the guidewire being positioned in the first passageway;

advancing the device over the guidewire and within the spinal subarachnoid space at least more than 10 centimeters from the entry location;

introducing a penetration apparatus through the first passageway of the device, the penetration apparatus including an outer sleeve element and an inner puncture

element, the outer sleeve element and the inner puncture element being slidably coupled together; and  
puncturing the pia matter using the penetration apparatus.

22. (original) The method of claim 1, further comprising:

creating a lesion in the brain of the living being.

23. (previously presented) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a guidewire into the spinal subarachnoid space at an entry location, the guidewire being sufficiently flexible to navigate the spinal subarachnoid space;

percutaneously introducing a device over the guidewire and into the spinal subarachnoid space, the device having a first passageway sized to slidably receive, and work with, at least the guidewire, and the guidewire being positioned in the first passageway; and

advancing the device over the guidewire and within the spinal subarachnoid space at least more than 10 centimeters from the entry location;  
wherein the advancing is achieved via a robotic device.

24. (original) The method of claim 1, further comprising:

monitoring the position of the device for a period of time using magnetic resonance imaging, fluoroscopy, endoscopy, computed tomography, thermal imaging, sonography, or any combination of these.

25-26. (canceled)

27. (original) The method of claim 1, further comprising:  
introducing material through the first passageway of the device; and  
placing the material proximate a cranial nerve to assist in treating a neurologic condition.

28. (original) The method of claim 1, further comprising:  
introducing genetic material through the first passageway of the device; and  
placing the genetic material within the living being to assist in treating a neurologic condition.

29-64. (canceled)

65. (previously presented) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a device into the spinal subarachnoid space at an entry location, the device having a first passageway sized to slidably receive, and work with, at least a guidewire;  
advancing the device within the spinal subarachnoid space at least more than 10 centimeters from the entry location;

introducing a penetration apparatus through the first passageway of the device, the penetration apparatus including an outer sleeve element and an inner puncture element, the outer sleeve element and the inner puncture element being slidably coupled together; and  
puncturing the pia matter using the penetration apparatus.

66. (previously presented) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a device into the spinal subarachnoid space at an entry location, the device having a first passageway sized to slidably receive, and work with, at least a guidewire; and  
advancing the device within the spinal subarachnoid space at least more than 10 centimeters from the entry location using a robotic device.

67. (currently amended) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a device into the spinal subarachnoid space at an entry location, the device having a first passageway sized to slidably receive, and work with, at least a guidewire;  
advancing the device within the spinal subarachnoid space at least more than 10 centimeters from the entry location;  
introducing a penetration apparatus through the first passageway of the device, the penetration apparatus including an outer sleeve element and an inner puncture



element, the outer sleeve element and the inner puncture element being slidably coupled together;  
puncturing the pia matter using the penetration apparatus;  
advancing the device over the guidewire from the spinal subarachnoid space into the intracranial subarachnoid space;  
introducing an electroencephalography electrode through the first passageway of the device; and  
placing the electrode on or in brain tissue.

68. (currently amended) A method of navigating a spinal subarachnoid space in a living being, comprising:

percutaneously introducing a device into the spinal subarachnoid space at an entry location, the device having a first passageway sized to slidably receive, and work with, at least a guidewire;  
advancing the device within the spinal subarachnoid space at least more than 10 centimeters from the entry location; ~~and~~  
introducing a penetration apparatus through the first passageway of the device, the penetration apparatus including an outer sleeve element and an inner puncture element, the outer sleeve element and the inner puncture element being slidably coupled together;  
puncturing the pia matter using the penetration apparatus; and  
accessing at least one ventricle located within the head with a second device introduced through the first passageway of the device.

69. (previously presented) The method of claim 68, further comprising:  
draining at least one ventricle located within the head.